Multimedia In Your Email

Electronic Mail Comes Of Age

By Kevin M. Savetz

Everywhere you look, folks are talking about the Internet and multimedia. World Wide Web browsers like Netscape make the Internet easy enough for a child to navigate. GopherVR will let you explore gopherspace using a slick, first-person "you are there" perspective. RealAudio lets you tune into audio on demand, even over a 14.4Kbps modem. The Internet and multimedia are slowly becoming intertwined.

Even tools as pedestrian as electronic mail benefit from the addition of multimedia. Today, most email sent and received is composed of boring ASCII text—letters, numbers, and a few symbols. The email that most of us send and receive lacks interesting fonts, colors, or the formatting options available in the simplest word processors. However, electronic mail is beginning to see a multimedia shift of its own.

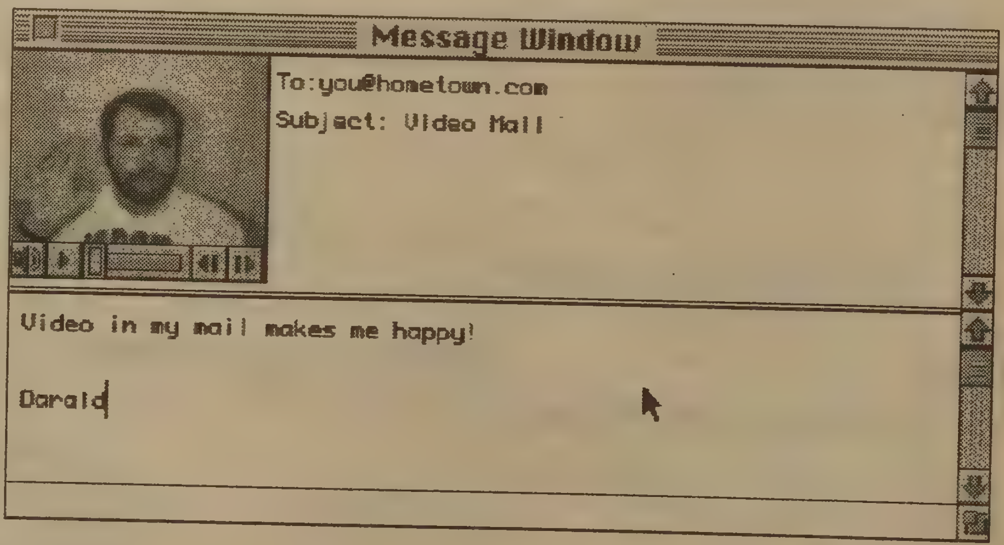
MIME

Today, MIME (the Multipurpose Internet Mail Extensions specification) lets Internet users send email containing graphics and text with simple layout. MIME is a freely available specification that offers a way to interchange text in languages with different character sets, and multimedia email among various computer systems. MIME messages can include, in addition to plain old ASCII text, other character sets, images and sounds, PostScript files, pointers to FTPable files, and more.

MIME is increasing in popularity, but is far from ubiquitous. Not all email clients can handle MIME, although an increasing number of them do, like Eudora (for the Mac and Windows) and TCP/Connect II (for the Macintosh).

VideoMail

In another example of how multimedia is enhancing electronic mail, there's VideoMail—a shareware program for the Macintosh that makes it easy to email a QuickTime movie of yourself hamming it up to a friend.



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Video in my mail makes me happy!

Donald

Using VideoMail, you can digitize yourself (using audio and video, or just audio, depending on the hardware attached to your Mac), enter an email address, and watch VideoMail encode the multimedia message and fire it off to an associate in just a few seconds. The recipient receives email with an encoded attachment—a QuickTime movie—of your face and voice.

VideoMail works great for short messages, but you're likely to annoy your friends if you send them a ten-minute video of yourself dancing around with the cat on your head. As with other multimedia tools, sending audio and video messages with VideoMail takes a good chunk of bandwidth—about 7Kbps for audio only, and 30Kbps for audio and video. The program's author recommends keeping audiovisual messages to fifteen seconds or less, and audio-only messages to under forty-five seconds. That fifteen-second VideoMail message with audio and video can take about four minutes to download at 14.4Kbps. Many users would agree that while that could be much faster, this is approaching an acceptable download time for a message of that length.

VideoMail is not an end-all email program. It was designed to be a simple, send-only multimedia mailer, and is a fine complement to a full-featured email program like Eudora. Perhaps soon, "full-featured" mail programs will include the ability to capture and send audio and video, without the help of a separate program like VideoMail.

VideoMail is only available for the Mac, but the price is right: a $5 shareware fee is all the author requests. Besides five bucks and a Mac, you'll also need a SLIP or PPP Internet connection. Windows users, don't

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When you're ready to send and receive video (with VideoMail or with real videoconferencing) you'll still need a video camera to beam your mug into cyberspace. Luckily, cheap hardware is already available: a company named Connectix has a gadget called the QuickCam, a $99 black-and-white snowball-sized job that works with CU-SeeMe.

If you're a Windows user, look no further than Logitech's VideoMan. It's even cooler than the QuickCam, although a bit more pricey at $399. The VideoMan is a sound and full-color video capture card for Windows machines. Besides working with CU-SeeMe, the VideoMan can do CD-quality audio, 30 frames-per-second video, and includes its own digital camera.

> *VideoMail works great for short messages, but you're likely to annoy your friends if you send them a ten-minute video of yourself dancing around with the cat on your head.*

despair: it's probable that someone will hack together a similar tool for Windows users too.

Multimedia Mail For The Masses?

Multimedia electronic mail will likely become a staple of Internet communications in coming months—certainly sooner than real-time applications like CU-SeeMe will. "Live" multimedia applications like CU-SeeMe and Internet Phone need to be able to send and receive information in real time—should your network connection slow down below a certain limit, packets of information will arrive late, or get lost. If you're participating in a videoconference and your network connection gets bogged down, a constant stream of packets (arriving in more or less the same order which they were created) is

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important. Receiving a snippet of video that should have arrived ten seconds ago makes for a conversation that is, at best, hard to follow.

But electronic mail doesn't occur in real time: it doesn't matter terribly if the message you sent is received in ten seconds or five minutes. So, with multimedia email, the information can travel at a more leisurely pace. If packets arrive out of order, they can be reassembled in sequence with no loss of continuity. So when your email program barks that mail has arrived, you'll receive a clear message, complete with video and audio.

Multimedia email works with a slow Internet connection—like your 14.4 modem. Videoconferencing doesn't.

Some people say that in the Internet's middle future, your service provider may charge not based on how long you're online, but based on how much information you send and how quickly you want that data to arrive. Under this scheme, real-time audio and video would use a lot of bandwidth requiring fast distribution to the recipient—expensive. On the other hand, a multimedia email message would cost less to send—although it might use the same amount of bandwidth, data could be sent at a lower priority because precise timing is not critical. ■

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For more information about MIME, read the comp.mail.mime FAQ, available on the Internet at *ftp://rtfm.mit.edu/pub/usenet-by-group/news.answers/mail/mime-faq/* and *http://www.cis.ohio-state.edu/text/faq/usenet/mail/mime-faq/top.html*

For more information about VideoMail, check out *http://www.spyglass.com/~dtrinka/videomail.html*

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